

# DRY BIOCHEMICAL ASSAY PLATE AND METHOD FOR MAKING THE SAME

## ABSTRACT

5 An assay plate for detecting the presence of a mobile reactant that binds to a  
immobilized reactant and the methods of making and using the same. An assay plate  
according to the present invention includes a substrate and at least one dried aliquot of the  
immobilized reactant, the immobilized reactant being bound to the surface of the substrate.  
The immobilized reactant binds the mobile reactant when a solution containing the mobile  
10 reactant is brought into contact with the immobilized reactant. The mobile and immobilized  
reactants may be any pair of biological compounds that have a specific affinity for one another  
. For example the reactants may be nucleic acids or antibody-antigen pairs. The preferred  
embodiment of an assay plate according to the present invention includes a plurality of assay  
spots, each spot having a different immobilized reactant or concentration thereof. The  
15 preferred method for fabricating an assay plate according to the present invention includes the  
steps of binding the immobilized reactant to the substrate, washing the substrate to remove  
any immobilized reactant that is not bound to the substrate and then drying the substrate. The  
dried assay plates are preferably stored in a water-proof container until used. An assay  
utilizing an assay plate according to the present invention is carried out by bringing a solution  
20 containing the mobile reactant into contact with the dried aliquot or aliquots on the assay  
plate. The assay plate is then washed to removed unbound material and the amount of mobile  
reactant bound to the washed assay plate determined. In the preferred embodiment of the  
present invention, the washed assay plate is dried prior to measuring the amount of mobile  
reactant bound to the washed assay plate.